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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/773,549	02/01/2001	Georg Bernreuther	P66244US0	7243

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EXAMINER

CUEVAS, PEDRO J

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 03/01/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/773,549

Applicant(s)

BERNREUTHER ET AL.

Examiner

Pedro J. Cuevas

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-16 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 February 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Direct Winding Wire To External Conductor Connected Multi-Phase Motor.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 1 rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,861,689 to Snider et al.

Snider et al. clearly teaches the construction of a multi-phase motor (1) comprising:

a rotor and stator (6) parts arranged concentrically to the rotor;

a core (7);

and a coil (11) consisting of:

a winding wire, wound up upon said core; and

Art Unit: 2834

a plug part (9) with plug pins (12, 22) with strip conductors for electrical connection to a power supply source;

the winding wires being connected directly to one of the plug pins and the strip conductors and there is provided, between each coil and the plug part an electrically insulating connecting piece (8) for receiving a section of the winding wire.

5. With regards to claim 2-4, 9 and 12, Snider et al. discloses a multi-phase motor having:
- coils which in each case, are received in a coil carrier that is made integrally with the connecting piece;
 - connecting pieces made integrally with a pin strip (added by the examiner) that holds the plug pins;
 - coil carriers made integrally with the connecting element and the pin strip;
 - at least one part of the winding wires is connected, via a passive electrical structural member with the one of the plug pins and the strip conductors;
 - coil carriers are made in one part and have an opening in which is received the coil body;

as shown in Figure 4.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 7, 8, 10, 11, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,861,689 to Snider et al. in view of U.S. Patent No. 4,656,378 to Atherton et al.

Snider et al. discloses the construction of a multi-phase motor as described above.

However, it fails to disclose a multi-phase motor, wherein in the plug part, there is firmly attached a first plurality of plug pins and a second plurality of plug pins firmly attached in a separate removably retained pin strip.

Atherton et al. teaches the construction of a plug part (44), having firmly attached a first plurality of plug pins (64) and a second plurality of plug pins (110) firmly attached in a separate removably retained pin strip (46) for the purpose of providing a connector on the stator which can be mated with a complimentary connector and creates a harness subassembly which can be produced with automatic or semiautomatic machines.

It would have been obvious to one skilled in the art at the time the invention was made to use the plug part disclosed by Atherton et al. on the multi-phase motor disclosed by Snider et al. for the purpose of providing a connector on the stator which can be mated with a complimentary connector and creates a harness subassembly which can be produced with automatic or semiautomatic machines.

8. With regards to claims 6, 8, 10, 11 and 13-15 Snider et al. in view of Atherton et al. discloses the construction of a multi-phase motor having:

one of the pin strips holds a plug housing by a catch connection;
the first and second plurality of plug pins is arranged in one row;

Art Unit: 2834

the winding wires are connected with the one of the plug pins and the strip conductors in a locking manner;

the winding wires are connected, in an electrically conducting manner, with the one of the plug pins and strip conductors in locking manner;

two coils with corresponding connecting pieces;

at least a part of the connecting pieces has a wire duct in which the winding wire section is guided; and

at least one part of the connecting pieces, in which the winding wire section lies exposed on an outside surface;

as shown in Figure 1 of Atherton et al..

9. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,861,689 to Snider et al. in view of U.S. Patent No. 4,656,378 to Atherton et al. as applied to claims 7, 8, 10, 11 and 13-15 above, and further in view of U.S. Patent No. 5,304,880 to Hisada et al.

Snider et al. in view of Atherton et al. discloses the construction of a multi-phase motor as described above.

However, it fails to disclose the construction of a multi-phase motor wherein a motor housing is made integrally with a plug housing.

Hisada et al. teaches the construction of a motor housing made integrally with a plug housing for the purpose of providing a motor housing with a wire connector connection box that is capable of receiving a water proof filler.

Art Unit: 2834

It would have been obvious to one skilled in the art at the time the invention was made to use the housing disclosed by Hisada et al. on the multi-phase motor disclosed by Snider et al. in view of Atherton et al. for the purpose of providing a motor housing with a wire connector connection box that is capable of receiving a water proof filler.

Allowable Subject Matter

10. Claims 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter: the prior art does not teaches the construction of a multi-phase motor, wherein: the coil carrier of one of the coils is made integrally with the connecting piece and a plug housing.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pedro J. Cuevas whose telephone number is (703) 308-4904. The examiner can normally be reached on M-F from 8:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Néstor R. Ramírez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-1341 for regular communications and (703) 305-3432 for After Final communications.

Application/Control Number: 09/773,549

Page 7

Art Unit: 2834

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Pedro J. Cuevas
February 19, 2002


NESTOR RAMIREZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800